

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number  
**WO 2004/005887 A2**

(51) International Patent Classification<sup>7</sup>:

**G01N**

(74) Agents: RIGAUT, Kathleen, D. et al.; DANN, DORFMAN, HERRELL AND SKILLMAN, 1601 Market Street, Suite 2400, Philadelphia, PA 19103 (US).

(21) International Application Number:

PCT/US2003/021154

(22) International Filing Date:

3 July 2003 (03.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/393,615

3 July 2002 (03.07.2002) US

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): UNIVERSITY OF WYOMING [US/US]; Research Products Center Office, P.O. Box 3672, Laramie, WY 82071 (US).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): HANSEN, Thomas, Ross [US/US]; P.O. Box 3402, 2540 S. Highway 287, Laramie, WY 82071-3402 (US). FRANCIS, Brian, R. [GB/US]; 805 E. Ivinson Avenue, Laramie, WY 82070-03347 (US). REMPEL, Lea, A. [US/US]; P.O. Box 816, Laramie, WY 82073 (US). AUSTIN, Kathleen, J. [US/US]; 25 Sage Ridge Road, Laramie, WY 82072 (US).

Published:

- without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/005887 A2

(54) Title: METHODS AND COMPOSITIONS FOR THE DETECTION OF PREGNANCY IN RUMINANTS

(57) Abstract: Provided herein are pregnancy specific marker genes, such as those shown in Tables 2A-B, and methods of detecting the same to determine pregnancy in ruminants.